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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,224	04/25/2001	Dietmar Adler	4797A-21	7428

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EXAMINER

RIDLEY, BASIA ANNA

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/842,224

Applicant(s)

ADLER ET AL.

Examiner

Basia Ridley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-12, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Species C in Paper No. 5 is acknowledged. Claims 4-6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species, there being no allowable generic or linking claim.

Drawings

2. The drawing(s) is/are objected to because the Fig. 2 is vaguely identified. It is not clear what are the reference numbers 4, 6 and 7 referring to. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. Applicant is reminded that no new matter shall be added.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "11" and "10" have both been used to designate the same part of the water ducts. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim(s) 1-3, 7-10 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gudymov et al. (DE 35 23 610) in view of Price (USP 2,231,295).

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Regarding claim(s) 1-2, 7 and 17, Gudymov et al. discloses a gasification reactor vessel comprising:

- a pressure shell (1, 3, 5) having an encircling body wall and shell ends at each of opposite ends of said body wall (Fig. 1);
- at least one cooling duct (2, 4, 9) extending around an outer surface of said body wall (1, 3, 5), said duct being fixedly connected to said outer surface, interior surfaces of said duct communicating with said outer surface;
- a fluid supply conduit (11) communicating with said cooling duct;
- a fluid discharge conduit (12) communicating with said cooling duct; and
- a lining of refractory (19) encircling an inner surface of said encircling body wall (1, 3, 5);

wherein

- said at least one duct (2, 4, 9) extends circularly around said body wall (1, 3, 5) outer surface and said fluid supply (11) and fluid discharge (12) conduits are annular and disposed, respectively, at one of two opposite ends of said shell body (Fig. 1);
- said at least one duct extends in a direction having at least a longitudinal component along said body wall, and said fluid supply (11) and fluid discharge (12) conduits are annular and located, respectively, at one of two opposite ends of said shell body (Fig. 1).

While Gudymov et al. discloses at least one cooling duct, the reference does not explicitly disclose a plurality of ducts wherein each cooling duct comprises a pair of spaced webs fixedly connected at common edges of each to said body wall outer surface, and an arcuate segment joining opposite edges of said webs.

Price establishes equivalency of cooling ducts having various shapes e.g. at least one cooling duct, such as a cooling jackets and cooling ducts formed as half tubes comprising a pair of spaced

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webs fixedly connected at common edges of each to said body wall outer surface, and a arcuate segment joining opposite edges of said webs, said ducts extending circularly around said body wall outer surface (Fig. 3-5). As instant specification is silent to unexpected results, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the at least one cooling duct of Gudymov et al. with half pipe cooling ducts, since such modification would have involved a mere substitution of known equivalent structures. A substitution of known equivalent structures is generally recognized as being within the level of ordinary skill in the art.

Regarding claim(s) 3, 8-10 and 18 Gudymov et al. in view of Price discloses all of the claim limitations as set forth above. Additionally, Price teaches the cooling ducts wherein:

- the webs of each duct are fixedly connected to said body wall outer surface with welded connections (Fig. 3-4);
- said ducts are arranged obliquely of a central axis of said body wall (Fig. 1 and 3-4);
- said ducts extend in a spiral course around said body wall outer surface (Fig. 1 and 3-4);
- each duct encircles said body outer wall surface spaced from ducts adjacent thereto (Fig. 1 and 3-4);
- a circumferential space separates adjacent ones of said ducts on said body wall outer surface (Fig. 1 and 3-4).

6. Claim(s) 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gudymov et al. (DE 35 23 610) in view of Price (USP 2,231,295), as applied to claim 1 above, and further in view of Dach (USP 4,637,823).

Regarding claims 11 Gudymov et al. in view of Price disclose all of the claim limitations as set forth above, but the references do not disclose the refractory layer comprising at least two separate concentric layers of refractory material.

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Dach teaches a gasifier reactor vessel wherein the refractory layer comprises at least two separate concentric layers of refractory material (Fig. 1). One of them forms a supporting brick wall while the other one shields the supporting wall from the highest temperature while it is free to expand without being subject to any compressive load from the dome (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a refractory layer comprising at least two separate concentric layers of refractory material in the reactor vessel of Gudymov et al., as taught by Dach, for the purpose of improving operation of said vessel by providing a separate supporting layer and insulating layer.

7. Claim(s) 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gudymov et al. (DE 35 23 610) in view of Price (USP 2,231,295) and further in view of Dach (USP 4,637,823), as applied to claim 11 above, and further in view of Schulz (USP 4,340,397).

Regarding claims 11 Gudymov et al. in view of Price and further in view of Dach disclose all of the claim limitations as set forth above. Additionally Dach discloses the vessel wherein the refractory layer comprises at least two separate concentric layers of refractory material such as fire bricks (Fig. 1 and C1/L59-C2/L35), but the reference does not explicitly disclose said refractory material being at least one of a ceramic and polytetrafluoroethylene.

Schulz establishes equivalency of fire ducts and ceramic blocks (C6/L64-C7/L12). As instant specification is silent to unexpected results, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the firebrick layers of Gudymov et al. in view of Price and further in view of Dach with ceramic blocks, since such modification would have involved a mere substitution of known equivalent structures. A substitution of known equivalent structures is generally recognized as being within the level of ordinary skill in the art.

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8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

9. In view of the foregoing, none of the claims are allowed.

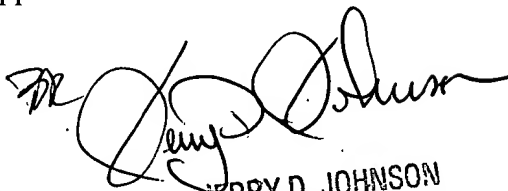
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Basia Ridley, whose telephone number is (703) 305-5418. The examiner can normally be reached on Monday through Thursday, from 9:00 AM to 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on (703) 308-6824.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Basia Ridley
Examiner
Art Unit 1764


JERRY D. JOHNSON
PRIMARY EXAMINER
GROUP 1100

BR
October 20, 2003